

TABLE E—1—931 MHz PAGING SERVICE RADII—Continued

| Service radius km (miles) | Effective radiated power (Watts) | | | | | |
|----------------------------|----------------------------------|-----------|-----------|-----------|-----------|-----------|
| Antenna HAAT meters (feet) | 0–125 | 126–250 | 251–500 | 501–1000 | 1001–1860 | 1861–3500 |
| (582–1001) | | | | | | |
| 306–427 | 32.2 (20) | 32.2 (20) | 37.0 (23) | 41.8 (26) | 56.3 (35) | 56.3 (35) |
| (1002–1401) | | | | | | |
| 428–610 | 32.2 (20) | 37.0 (23) | 41.8 (26) | 56.3 (35) | 56.3 (35) | 56.3 (35) |
| (1402–2001) | | | | | | |
| 611–861 | 37.0 (23) | 41.8 (26) | 41.8 (26) | 56.3 (35) | 83.7 (52) | 83.7 (52) |
| (2002–2825) | | | | | | |
| 862–1219 | 41.8 (26) | 56.3 (35) | 56.3 (35) | 83.7 (52) | 83.7 (52) | 83.7 (52) |
| (2826–3999) | | | | | | |
| 1220+ | 56.3 (35) | 56.3 (35) | 83.7 (52) | 83.7 (52) | 83.7 (52) | 83.7 (52) |
| (4000+) | | | | | | |

(f) *931 MHz interfering contour.* For paging stations transmitting on the 931 MHz channels, the interfering contour is a circle, centered on the transmitting antenna, with a radius determined from Table E–2 of this section.

TABLE E—2—931 MHz PAGING INTERFERING RADII

| Interfering radius km (miles) | Effective radiated power (Watts) | | | | | |
|-------------------------------|----------------------------------|------------|-------------|-------------|-------------|-------------|
| Antenna HAAT meters (feet) | 0–125 | 126–250 | 251–500 | 501–1000 | 1001–1860 | 1861–3500 |
| 0–177 | 80.5 (50) | 80.5 (50) | 80.5 (50) | 80.5 (50) | 80.5 (50) | 80.5 (50) |
| (0–581) | | | | | | |
| 178–305 | 80.5 (50) | 80.5 (50) | 80.5 (50) | 80.5 (50) | 88.5 (55) | 96.6 (60) |
| (582–1001) | | | | | | |
| 306–427 | 80.5 (50) | 80.5 (50) | 88.5 (55) | 96.6 (60) | 130.4 (81) | 130.4 (81) |
| (1002–1401) | | | | | | |
| 428–610 | 80.5 (50) | 88.5 (55) | 96.6 (60) | 130.4 (81) | 130.4 (81) | 130.4 (81) |
| (1402–2001) | | | | | | |
| 611–861 | 88.5 (55) | 96.6 (60) | 96.6 (60) | 130.4 (81) | 191.5 (119) | 191.5 (119) |
| (2002–2825) | | | | | | |
| 862–1219 | 96.6 (60) | 130.4 (81) | 130.4 (81) | 191.5 (119) | 191.5 (119) | 191.5 (119) |
| (2826–3999) | | | | | | |
| 1220+ | 130.4 (81) | 130.4 (81) | 191.5 (119) | 191.5 (119) | 191.5 (119) | 191.5 (119) |
| (4000+) | | | | | | |

(g) *In-building radiation systems.* The locations of in-building radiation systems must be within the service contour(s) of the licensee's authorized transmitter(s) on the same channel. In-building radiation systems are not protected facilities, and therefore do not have service or interfering contours.

(h) *Signal boosters on 931 MHz channels.* For the purpose of compliance with § 22.165 and notwithstanding paragraphs (e) and (f) of this section, signal boosters operating on the 931 MHz channels with an antenna HAAT not exceeding 30 meters (98 feet) are deemed to have as a service contour a circle with a radius of 1.0 kilometer (0.6 mile) and as an interfering contour a

circle with a radius of 10 kilometers (6.2 miles).

[59 FR 59507, Nov. 17, 1994, as amended at 61 FR 31051, June 19, 1996]

§ 22.559 Paging application requirements.

In addition to information required by subparts B and D and § 22.529, applications for authorization to operate a paging transmitter on the channels listed in § 22.531, other than applications for a paging geographic area authorization, must contain the applicable supplementary information described in this section.

(a) *Interference exhibit.* Except as provided in paragraph (b) of this section, an exhibit demonstrating compliance with § 22.537 with regard to protected

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transmitters is required for applications to operate a transmitter on the VHF channels. This exhibit must:

(1) Identify each protected transmitter located within 109 kilometers (68 miles) of the proposed transmitter in directions in which the distance to the interfering contour is 76.5 kilometers (47.5 miles) or less, and within 178 kilometers (111 miles) of the proposed transmitter in directions in which the distance to the interfering contour exceeds 76.5 kilometers (47.5 miles).

(2) For each protected transmitter identified, show the results of distance calculations indicating that there would be no overlap of service and interfering contours, or alternatively, indicate that the licensee of or applicant for the protected transmitter and/or the applicant, as required, have agreed in writing to accept any interference resulting from operation of the proposed transmitter.

(b) *Encompassment exhibit.* An exhibit showing that the area within the interfering contour of the proposed transmitter would be totally encompassed by interfering contours of operating co-channel base transmitters controlled by the applicant is required for applications to operate a transmitter with ERP exceeding the basic power and height-power limits of § 22.535. For VHF transmitters, this encompassment exhibit may substitute for the interference exhibit required in paragraph (a) of this section.

[59 FR 59507, Nov. 17, 1994, as amended at 62 FR 11636, Mar. 12, 1997]

ONE-WAY OR TWO-WAY MOBILE OPERATION

§ 22.561 Channels for one-way or two-way mobile operation.

The following channels are allocated for paired assignment to transmitters that provide (or support other transmitters that provide) one-way or two-way public land mobile service, either individually or collectively under a paging geographic area authorization. The paging geographic areas used for these channels are the EAs (*see* § 22.503(b)(3)). These channels may be assigned for use by mobile or base transmitters as indicated, and or by

fixed transmitters (including control, repeater or other fixed transmitters). The mobile channels may also be assigned for use by base or fixed transmitters under certain circumstances (*see* § 22.567(h)). Unless otherwise indicated, all channels have a bandwidth of 20 kHz and are designated by their center frequencies in MegaHertz.

| Base | Mobile | Base | Mobile |
|---------------|---------|---------------|---------|
| VHF Channels | | | |
| 152.03 | 158.49 | 152.57 | 157.83 |
| 152.06 | 158.52 | 152.60 | 157.86 |
| 152.09 | 158.55 | 152.63 | 157.89 |
| 152.12 | 158.58 | 152.66 | 157.92 |
| 152.15 | 158.61 | 152.69 | 157.95 |
| 152.18 | 158.64 | 152.72 | 157.98 |
| 152.21 | 158.67 | 152.75 | 158.01 |
| 152.51 | 157.77 | 152.78 | 158.04 |
| 152.54 | 157.80 | 152.81 | 158.07 |
| UHF Channels | | | |
| 454.025 | 459.025 | 454.350 | 459.350 |
| 454.050 | 459.050 | 454.375 | 459.375 |
| 454.075 | 459.075 | 454.400 | 459.400 |
| 454.100 | 459.100 | 454.425 | 459.425 |
| 454.125 | 459.125 | 454.450 | 459.450 |
| 454.150 | 459.150 | 454.475 | 459.475 |
| 454.175 | 459.175 | 454.500 | 459.500 |
| 454.200 | 459.200 | 454.525 | 459.525 |
| 454.225 | 459.225 | 454.550 | 459.550 |
| 454.250 | 459.250 | 454.575 | 459.575 |
| 454.275 | 459.275 | 454.600 | 459.600 |
| 454.300 | 459.300 | 454.625 | 459.625 |
| 454.325 | 459.325 | 454.650 | 459.650 |

[59 FR 59507, Nov. 17, 1994; 60 FR 9889, Feb. 22, 1995, as amended at 62 FR 11636, Mar. 12, 1997]

§ 22.565 Transmitting power limits.

The transmitting power of base, mobile and fixed transmitters operating on the channels listed in § 22.561 must not exceed the limits in this section.

(a) *Maximum ERP.* The effective radiated power (ERP) of base and fixed transmitters must not exceed the applicable limits in this paragraph under any circumstances.

| Frequency range (MHz) | Maximum ERP (watts) |
|-----------------------|---------------------|
| 152–153 | 1400 |
| 157–159 | 150 |
| 454–455 | 3500 |
| 459–460 | 150 |

(b) *Basic power limit.* Except as provided in paragraph (d) of this section,